

## Healthcare unicorns and where to find them



[Elizabeth Cairns](#)

In mythology unicorns are skittish things, and in business they appear little easier to pin down. *EP Vantage* has compiled a list of private start-up companies in the healthcare arena that are widely considered to be worth more than \$1bn; notably it features very few makers of human therapeutics.

Instead these unicorns are involved in cutting-edge computational research such as artificial intelligence, sequencing or virtual reality, or are in risky, unproven areas. It is plausible that one of the reasons they have not been bought is because no acquirer knows where to put them (see table below).

Those that are in the business of developing human therapeutics are working in the as-yet unproven field of mRNA - Moderna Therapeutics and Curevac. This technology promises much but faces at least one major problem: the molecules must enter the cell in order to have an effect and no one has yet been able to do this reliably.

Moderna has five mRNA-based therapies in the clinic and partnerships with companies including Merck & Co and Astrazeneca, so if the trials work out perhaps a takeover is not an impossible outcome - but as the group's chief executive Stéphane Bancel said a few months ago, the mRNA candidates are "either going to be a huge success or not work", with "nothing in between" ([Moderna comes out of stealth mode, January 10, 2017](#)).

German group Curevac is looking at both vaccines and therapeutics based on mRNA, and faces a similar all-or-nothing outcome. Its products are further along, with two projects for prostate cancer in phase II.

### **AI caramba**

Many of the other unicorns have tech that is far more esoteric. The UK group with the somewhat dystopian-sounding name of BenevolentAI uses artificial intelligence to aid drug discovery - both small molecules and antibodies - and claims to have a pipeline of drug candidates, some of which have reached phase II. It is working with pharmaceutical groups to license compounds, and also with charities, particularly in rare disease areas.

### Private healthcare groups with \$1bn-plus valuations

Company	Post-money value (\$bn) (Crunchbase)	Total disclosed funding (\$m) (CBI)	Headquarters	Focus
Intarcia Therapeutics	3.7	1,000	Boston, US	Subcutaneous drug delivery system
Moderna	3.0	1,300	Cambridge, US	mRNA technology
BenevolentAI	1.9	141	London UK	Drug development AI platform
CureVac	1.7	381	Tübingen, Germany	mRNA technology
Oxford Nanopore Technologies	1.6	496	Oxford, UK	Genetic sequencing and analysis
Proteus Digital Health	1.2	417	Redwood City, US	Ingestible sensors
Flatiron Health	1.2	313	New York, US	Oncology data platform
Human Longevity	1.2	300	San Diego, US	Genetic sequencing and analysis
23andMe	1.1	244	Mountain View, US	Genetic sequencing and analysis
Mindmaze	1.1	119	Ecublens, Switzerland	Neuro-VR

Source: CBInsights, CrunchBase

Mindmaze also employs AI tech, in this case in virtual reality headsets. The group gained FDA clearance this month for its MindMotion Pro system to aid the rehabilitation of stroke and traumatic injury patients. The device can coordinate movement and brain function and then analyse the data to tailor therapy, and Mindmaze says it can accelerate neural recovery.

Often a nod from the FDA is enough to attract acquirers' interest in a company, but selling hospitals on virtual reality-mediated rehab might be a hard prospect.

#### Looking for longevity

Then there are the sequencers. Human Longevity, co-founded by Craig Venter, aims to build a vast database of human genomic data and subject it to machine learning to help scientists develop therapies against diseases of old age. In the meantime it offers a genome sequencing service ordered by doctors that can provide patients with information about the diseases they might develop in future.

Oxford Nanopore Technologies says its sequencing technology is faster and cheaper than its rivals', potentially opening up emerging markets – not a bad strategy in times when budgets remain squeezed ([Oxford Nanopore squares up to Illumina's sequencing might, December 12, 2016](#)).

But acquirers – and retail investors should any of these companies choose to go public – might well be leery of the genetic testing space. Theranos was king of the healthcare unicorns once, boasting an implied valuation approaching \$9bn in mid-2015. Its failure points up the risk of promising the earth while failing to provide proof.

If these companies are to justify valuations in excess of \$1bn, they will need to show beyond doubt that their science is sound and their commercial path clear.

To contact the writer of this story email Elizabeth Cairns in London at [elizabethc@epvantage.com](mailto:elizabethc@epvantage.com) or follow [@LizVantage](https://twitter.com/LizVantage) on Twitter

